

ABSTRACT OF THE DISCLOSURE

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A light-emitting diode includes: a semiconductor substrate; and a layered structure, made of an AlGaInP type compound semiconductor material and provided on the semiconductor substrate. The layered structure includes: a light-emitting structure composed of a pair of cladding layers and an active layer for emitting light provided between the pair of cladding layers; and a current diffusion layer which is lattice-mismatched with the light-emitting structure. A lattice mismatch $\Delta a/a$ of the current diffusion layer with respect to the light-emitting structure defined by the following expression is -1% or smaller:

$$\Delta a/a = (a_d - a_e)/a_e$$

where a_d is a lattice constant of the current diffusion layer, and a_e is a lattice constant of the light-emitting structure.